

Alcatel-Lucent 5130 Geographic Messaging Services Platform (GMSP)

Location-based social networking application for mobile devices



Today's mobile end users have a world of information available to them through their mobile device. Whether they are using cell phones, smartphones, or personal data assistants (PDAs), end users can connect with friends and family using short messaging services, multimedia messaging services, and e-mail, or access the Internet to locate products or services within a specific geographic area, such as a restaurant recommended by a friend.



These “pull-based” services require users to manually initiate a query. When retailers offer products or services by “pushing” advertisements or offers to end users, this information is often out of context with a user’s location. So that reminder to try the cheesecake at the local bistro, pick up milk on the way home, or join a friend for a coffee may appear on the end user’s mobile device at the wrong time and wrong place.

At the same time, these messages produce an extra load on a mobile network and extra drain on the battery in the end user’s mobile device.

The Alcatel-Lucent Social Networking Application changes the way mobile end users receive information by delivering messages when and where they matter. It makes each message more immediate and relevant by associating it to the end user’s location.

Powered by Geographic Messaging Services Platform (GMSP)

The Alcatel-Lucent Social Networking Application is a novel, location-based social networking service for mobile devices that delivers content and buddy alerts based on the user’s location. It is part of the Alcatel-Lucent Application Suite offered with the Alcatel-Lucent 5130 Geographic Messaging Services Platform (GMSP).

With this application, location-based messages are only “pushed” to end users when they enter a geographic messaging zone or “geographic fence” (Figure 1), such as the block where a coffee shop is located or an airport. For example, users walking through downtown New York can choose to receive messages about the nearest Wi-Fi® hot spot or mobile sticky notes left by friends about a great restaurant in the area. The same users could choose to receive a different set of messages when they enter a different geographic fence, such as a New York burrough.

This unique messaging capability enhances the end-user experience by ensuring end users get the messages they want when they want them. By allowing users to opt-in to the marketing messages and social networks of their choosing, spam messages are minimized and the load on the network is reduced. Both service providers and end-users benefit with the reduction of unnecessary message traffic resulting in improving quality of service and optimal usage of available network resources. And it reduces the drain on the battery in end-user devices. Most importantly, it enables a variety of mobile marketing, social networking, child tracking and location based services (LBS) geo-channels that can deliver more revenue to service providers.

Built on Geofencing technology

The Alcatel-Lucent Social Networking Application and 5130 GMSP, invented by Bell Labs, is powered by the Alcatel-Lucent patent-pending Geofencing engine. Geofencing* uses predictive movement algorithms and intelligent load balancing to dynamically shift message processing from a central server to a distributed

* A geofence is a virtual geographic region defined by the service provider, advertiser or end user (e.g., 1000 meters around a mall or arena)

HOW IT WORKS

To activate the Alcatel-Lucent Social Networking Application, mobile service providers must contract for service on the hosted Alcatel-Lucent 5130 GMSP. This hosted platform allows end users to opt in for the service and download the geographic messaging service (GMS) client to their cell phone. With the application, end users can:

- Manage multiple messaging channels from a single account
- Use their existing contact databases (e.g., from popular social networking or email applications) to build a Geopepper network
- Create and manage GMS messages where and when they want them



client. The client-server platform is capable of supporting mass-market delivery of mobile content, as well as advanced features, such as continuously shifting or moving fences (e.g., fences around two friends who wish to be notified if they are both at the same mall).

This unique Geofencing engine creates a new messaging medium, GMS, which detects when an end user who has opted in for the service crosses into or out of a target zone. GMS messages are delivered based on this geographic targeting and content is sent only once a user has entered the target zone. This ensures messages are delivered only when the information is most relevant.

The Alcatel-Lucent Social Networking Application is just one of the services possible with the Alcatel-Lucent 5130 GMSP. Additional vertical market GMS applications can be deployed on the same GMS platform. This drives mobile network efficiencies and increases the opportunity for additional GMS-based revenue. Potential applications include:

- Mobile marketing and advertising (e.g., sports arenas/stadiums)
- Social networking
- Geo-blogging
- Retail affinity
- Child safety
- Travel guides
- Restaurant guides
- Gaming
- Corporate productivity and asset tracking

Figure 1. Alcatel-Lucent Social Networking Application at work



Figure 2. Alcatel-Lucent 5130 Geographic Messaging Service Platform enables a wide array of location-driven services



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